

Amendments to the Claims:

Please cancel claims 1-10 and add new claims 11-21 as follows. The following listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claims 1-10 (Cancelled).

Claim 11 (New). A method for transmitting data from several first stations to a second station, the first stations each including at least a first transmitter, a first receiver and a first clock, and the second station including at least a second transmitter, a second receiver and a second clock, the method comprising the steps of:

transmitting, in a synchronization time slot of a time window, a synchronization message from the second station to the first stations,

transmitting, in a selection time slot of the time window, selection messages from the second station to selected first stations,

deactivating the receivers of the first stations at the end of the selection time slot,

15 transmitting, in response time slots of the time window,
data from selected first stations to the second station,
 wherein each first station, to which a selection message
corresponding to that first station has been transmitted by the
second station, deactivates its receiver as soon as the
20 corresponding selection message is received by the first station
before the end of the selection time slot.

Claim 12 (New). The method according to claim 11, wherein
the selection messages are transmitted in a predetermined
sequence and the deactivation takes place based on the sequence.

Claim 13 (New). The method according to claim 12, wherein
several sequences are applied and a sequence indication of the
sequence to be applied in a specific time window is transmitted
by the second station in the synchronization time slot.

Claim 14 (New). The method according to any one of claims
11-13, wherein the selection messages each contain a time
indication of the response time slots.

Claim 15 (New). The method according to any one of claims 11-13, wherein the selection messages each contain a time indication of command time slots following the selection time slot for transmitting command messages from the second station to 5 the selected first station.

Claim 16 (New). The method according to claim 15, wherein a command message contains a time indication of a response time slot.

Claim 17 (New). The method according to any one of claims 11-13, wherein the transmitter of each first station is activated only during the respective response time slot.

Claim 18 (New). The method according to any one of claims 11-13, wherein a duration of the current time window is transmitted to the first stations by the second station in the synchronization time slot.

Claim 19 (New). A system for transmitting data, comprising:

5 a plurality of first stations, each having a first transmitter, a first receiver, a first control unit and a first clock,

a second station having a second transmitter, a second receiver, a second control unit and a second clock,

wherein the first stations and the second station are arranged to communicate with each other in a time window,

10 wherein the second station is arranged for sending a synchronization message to the first stations in a synchronization time slot of the time window,

15 the first stations are arranged for receiving the synchronization message and synchronizing their clocks based on the synchronization message,

wherein the second station is further arranged for transmitting selection messages in a selection time slot, the selection messages indicating first stations,

20 wherein the first stations are further arranged to receive the selection messages,

wherein the first stations are further arranged to transmit data to the second station in response time slots of the time window according to the reception of the selection messages corresponding with the first stations,

25 wherein the first stations are further arranged to deactivate their receivers at the end of the selection time slot, and

wherein the system comprises means arranged for performing the steps of a method according to any one of the claims 11-18.

Claim 20 (New). A local station, comprising a transmitter, a receiver, a control unit and a clock,

arranged to receive in a synchronization time slot of a time window a synchronization message from a second station,

5 and further arranged to receive, in a selection time slot of the time window, a selection message from the second station,

and further arranged to deactivate the receiver at the end of the selection time slot,

10 and further arranged to transmit data to the second station, in a response time slot of the time window,

wherein the measuring station is further arranged to deactivate its receiver as soon as the corresponding selection message is received, before the end of the selection time slot.

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Claim 21 (New). The local station according to claim 20,
wherein the transmitter is activatable only during the response
time slot.
